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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,261	09/26/2001	Shinichi Morimoto	P/1929-85	8415

7590   11/10/2005

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EXAMINER
SIMITOSKI, MICHAEL J

ART UNIT	PAPER NUMBER
2134	

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *14 September 2005*.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-10* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-10* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *26 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   The response of 9/14/2005 was received and considered.

2.   Claims 1-10 are pending.

Response to Arguments

3.   Applicant's arguments filed 9/14/2005 have been fully considered but they are not

persuasive.

4.   Applicant's response (p. 9, ¶3) argues that Cropper does not transmit the packet received

from the interface portion to the predetermined server when the terminal has not been

authenticated for the LAN. However, Cropper receives a packet from a mobile station at an

HLR of a home network and searches for subscriber data (col. 5, lines 1-11). If not found, a

VLR of the home network is searched (col. 5, lines 12-18) (the request is transmitted to the

VLR). If either the HLR or the VLR of the home network contains the subscriber data and the

data is authenticated, then the MS will communicate with the home network. Therefore, the

packet is transmitted to a predetermined server or network connected device (VLR) if it is not

authenticated. Further, when the subscriber data is found in another network's HLR, it is

transmitted to the requesting networks HLR/VLR/ISR (see Fig. 6, data flow 5). Copper

explicitly discloses the instance in which the HLR, VLR and ISR are provided on separate

platforms and not integrated (col. 7, lines 19-27).

5.   Applicant's response (p. 10, ¶2-3) argues that Jones does not teach a packet received from

an interface portion transmitted to the predetermined server or network connected device when

the contents of the first packet distributing table represent that the terminal has not been

authenticated. However, Jones is cited for teaching authenticating the data and if it is not

authenticated, transferring the data to a registration server. Decasper teaches that when

examining incoming data, it is faster to store examination results in a cache so as to quickly

evaluate similar packets. Therefore, Jones, as modified by Decasper, teaches checking a packet

distributing table to determine if the packet has yet been authenticated.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.

7.   Claims 1-2 & 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent

5,819,178 to **Cropper**.

Regarding claims 1 & 5, Cropper discloses a base station/MSC,HLR,VLR,ISR (Fig. 4,

#113,121,130) comprising an interface portion (Fig. 6, #112) for making a communication with a

terminal station/MS (Fig. 6, #500) and extracting authentication request information/call request

and a reception/registration packet therefrom (col. 4, lines 35-65), a first authentication

managing portion/HLR for determining whether or not to authenticate said terminal station for

said LAN/Visited network (Fig. 6, #100) corresponding to said authentication request

information/call request received from said interface portion (Fig. 3A & col. 4, lines 35-57) and

setting a result of the determination (Fig. 3C) to a first packet distributing table/HLR (Fig. 6,

#130) and a first packet distributing portion/HLR (Fig. 6, #130) for referencing registered

contents of said first packet distributing table/HLR (Fig. 6, #130) for the packet received from

said interface portion (col. 5, lines 12-18), transferring the packet received from said interface

portion to said LAN/Visited network (Fig. 6, #100) when said contents of said first packet

distributing table represent that said terminal station has been authenticated for said LAN (HLR

or VLR authenticates MS, completing registration) (Fig. 3A), and transmitting the packet

received from said interface portion to said predetermined server or network-connected

device/VLR (Fig. 6, #430 & col. 5, lines 35-41) when said contents of said first packet

distributing table represent that said terminal station has not been authenticated for said LAN

(Fig. 3B, process A, col. 5, lines 19-23 & lines 35-40).

Regarding claim 2 & 6, Cropper discloses a second authentication managing portion/ISR

(Fig. 6, #130), a second packet distributing portion/ISR (Fig. 6, #130) and a second packet

distributing table/ISR (Fig. 6, #130) for storing a plurality of destinations/addresses, wherein said

second authentication managing portion/ISR is configured for determining whether or not to

authenticate said terminal station/MS (Fig. 6, #500 & col. 5, lines 19-23) corresponding to said

authentication request information and setting a result of the concerned determination to said

second packet distributing portion/ISR (col. 5, lines 19-23, Fig. 3C, process C & Fig. 6, #130)

when the result of the determination of said first authentication managing portion represents that

said terminal station has not been authenticated for said LAN/Visited network (Fig. 6, #100),

wherein said first packet distributing portion/VLR (Fig. 6, #130) is configured for transferring

the packet received from said terminal station/MS (Fig. 6, #500) to said second packet

distributing portion/ISR (col. 5, lines 12-23 & Fig. 6, #130) when said registered

contents/subscriber data of said first packet distributing table/VLR (Fig. 6, #130) represent that

said terminal station has not been authenticated for said LAN/Visited network (Fig. 6, #100), and

wherein said second packet distributing portion/ISR (Fig. 6, #130) is configured for referencing

the registered contents of said second packet distributing table/ISR (Fig. 6, #130) for the packet

received from said first packet distributing portion/VLR (col. 5, lines 12-23 & Fig. 6, #130) and

transmitting the packet received from said terminal station to an appropriate server or network-

connected device/Home HLR (Fig. 6, #430) corresponding to a destination/address to which the

packet is distributed (col. 5, lines 19-23 & lines 35-40).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

9.   Claims 1, 3, 5 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent 6,873,609 to Jones et al. (**Jones**) in view of "Router Plugins: A Software Architecture for

Next Generation Routers" by Decasper et al. (**Decasper**). Jones discloses a base station/access

operator RADIUS authentication server (col. 3, lines 20-37) including an interface portion for

making a communication with a terminal station/PC and extracting authentication request

information/new user and a reception packet/new user therefrom (col. 3, lines 20-37), a first

authentication managing portion/RADIUS for determining whether or not to authenticate said

terminal station for a LAN/managed IP network (Fig. 1, #31) corresponding to said

authentication request information received from said interface portion, transferring the packet

received from said interface portion to said LAN/managed IP (col. 3, lines 20-37) when said

terminal station has been authenticated for said LAN, and transmitting the packet received from

said interface portion to said predetermined server or network-connected device/Access

Operators registration server (col. 3, lines 20-37) when said terminal station has not been

authenticated for said LAN (col. 3, lines 20-37). Jones lacks setting a result of the determination

to a first packet distributing table and a first packet distributing portion for referencing registered

contents of said first packet distributing table for the packet received from said interface portion

and consulting the first packet distributing table for terminal authentication. However, Decasper

teaches that high performance is achieved in a network decision device by storing the result of a

determination in a cache and consulting the cache for result rather than the re-

examining/authenticating (§3, ¶6 & P. 5, ¶2). By doing so, rather than authenticating each of

Jones's packets, if the determination that the packet has been authenticated or denied

authentication by the registration server, the cache is updated with the resulted and consulted.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the

invention was made to set a result of the determination to a first packet distributing table/cache

and to include a first packet distributing portion for referencing registered contents of said first

packet distributing table/cache for the packet/new user received from said interface portion and

consulting the first packet distributing table/cache for terminal authentication. One of ordinary

skill in the art would have been motivated to perform such a modification to achieve high

performance, as taught by Decasper (§3, ¶6 & P. 5, ¶2).

10.   Claims 3-4 & 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Cropper, as applied to claims 1-2 & 5-7 above, in further view of U.S. Patent 6,397,056 to

Bugnon et al. **(Bugnon)**. Cropper lacks issuing an authentication request to an inner LAN

authentication server and setting a response to the authentication request in the packet

distribution table. However, Bugnon teaches that in order to reduce fraud in radio

telecommunications networks, networks include an authentication center, which is normally co-

located with the HLR (col. 1, lines 27-30). Each subscriber has an authentication key, which is

used to authenticate the mobile terminal (col. 1, lines 31-45, col. 2, lines 47-64 & Fig. 5).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the

invention was made to modify Cropper to issue an authentication request to an inner LAN

authentication server and setting a response to the authentication request in the packet

distribution table, instead of using plaintext identifiers. One of ordinary skill in the art would

have been motivated to perform such a modification to reduce fraud in radio telecommunications

networks, as taught by Bugnon (col. 1, lines 31-45, col. 2, lines 47-64 & Fig. 5).

11.   Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cropper** in

view of U.S. Patent 6,606,491 to **Peck**. Cropper discloses a system, as described above, but

lacks explicitly registering a refusal in the packet distributing table if the terminal station has not

been authenticated. However, Peck teaches that in mobile telecommunications systems, it is

known to check a blacklist of mobile numbers when authenticating to deny access not only if the

terminal is not authenticated, but also if the terminal is a stolen terminal (col. 1, lines 36-46, lines

50-54, lines 58-65, col. 5, lines 4-7 & col. 8, lines 15-17). Therefore, it would have been obvious

to one having ordinary skill in the art at the time the invention was made to modify Cropper to

explicitly register an authentication refusal/blacklisted mobile terminal in the packet distributing

table. One of ordinary skill in the art would have been motivated to perform such a modification

to deny access if the terminal is a stolen terminal, as taught by Peck (col. 1, lines 36-46, lines 50-

54, lines 58-65, col. 5, lines 4-7 & col. 8, lines 15-17).

Conclusion

12.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

13.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael J. Simitoski whose telephone number is (571) 272-3841.

The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m.. The

examiner can also be reached on alternate Fridays from 6:45 a.m. – 3:15 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Gregory Morse can be reached at (571) 272-3838.

Any response to this action should be mailed to:
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Or faxed to:
(571) 273-8300
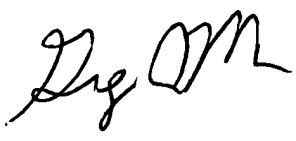(for formal communications intended for entry)
Or:
(571) 273-3841 (Examiner's fax, for informal or draft communications, please
label "PROPOSED" or "DRAFT")

Any inquiry of a general nature or relating to the status of this application or proceeding should
be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJS
October 31, 2005

GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100